

HAZARDS OF ADDICTION DURING CHILD BEARING AGE AMONG FEMALES**Dr. Krishna Singh***

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INTRODUCTION

The national survey on drug abuse happened around 15 years back, where there was no mention of females, but now their numbers are figuring in surveys, which itself is indicative of the rising concern of drug abuse. The concern of drug abuse among women especially seems to be increasing in Punjab state.

MATERIALS

The Text book of clinically oriented Embryology by Keith Moore, Human Embryology by Inderbir Singh. Source from Internet data.

METHOD

The subject was thoroughly reviewed and collected from above mentioned sources.

DISCUSSION

Addiction is a growing concern among women of child bearing age group which leads to serious health concern in the babies born to addicted women. Research has shown that women often use drugs differently, respond to drugs differently, and can have unique obstacles to effective treatment as simple as not being able to find child care or being prescribed treatment that has not been adequately tested on women.

Hence, an effort to educate and increase the awareness among women to understand the hazards of Addiction should be done to fight and prevent them from this.

Tobacco and alcohol are the most commonly abused substances, followed by marijuana and cocaine. Maternal substance abuse is closely linked to child development. Many different physical, behavioral, developmental, cognitive, social, academic, and vocational problems are noted in the children of women who abuse drugs and alcohol while pregnant.

Addiction during pregnancy is a grave concern because it puts **two lives at risk**.

Drugs acting as Teratogen: Although the human embryo is well protected in the uterus, many

environmental agents known as teratogens cause growth retardation after maternal exposure to them.

A teratogen is any agent that can produce a birth defect (congenital anomaly) or increase the incidence of a defect in the population.

The organs and parts of an embryo are most sensitive to teratogenic agents during period of rapid differentiation. Because biochemical differentiation precedes morphologic differentiation, the period during which structures are sensitive to interference by teratogens often precedes the stage of their visible development by a few days. Teratogens do not appear to be effective in causing defects until cellular differentiation has begun, however, their early actions (eg. During the first two weeks) may cause death of the embryo. The exact mechanisms by which drugs, chemicals and other environmental factors disrupt embryonic development and induce abnormalities remain obscure.

Principle of Teratogenesis

When considering the possible teratogenicity of an agent, such as a drug or chemical, three important principles must be considered.

1. Critical period of development: the most critical period is when cell division, cell differentiation and morphogenesis are at their peak
2. Dose of the drug or chemicals
3. Genotype (genetic constitution) of the embryo

Tobacco use/ Smoking

Smoking during pregnancy is harmful to both mother and baby. For women who are trying to conceive, tobacco use makes it harder to become pregnant. Miscarriages are more likely in smokers and there is an **increase in abortion rate** by 33 percent. The risk of stillbirth increases by 23 percent in smokers. The risk of infections is higher in the unborn child if the mother is a

smoker. Smoking is associated with placental problems such as early separation from the womb (the placenta is the source of oxygen and nutrition to the baby).

Maternal smoking is also a risk factor for SIDS (sudden infant death syndrome). Tobacco use during pregnancy raises the risk of premature birth, a low birth weight and health hazards, requiring a longer hospital stay. Birth defects such as cleft lip and cleft palate are more likely in babies born to such mothers.

Besides active tobacco use, exposure to second-hand smoke during pregnancy is associated with a significantly higher rate of preterm delivery.

Alcohol

Women who are risky drinkers (more than 7 drinks per week or more than 3 drinks on one occasion) are badly affected. Drinking alcoholic beverages during pregnancy has a number of harmful consequences including preterm labor. It is associated with a **four times higher risk** of spontaneous abortion. Heavy alcohol use (more than three alcoholic drinks daily) during pregnancy increases the risk of spontaneous abortion by more than threefold.

Fetal alcohol spectrum disorders are a set of conditions that occur in babies that are exposed to alcohol during their mother's pregnancy. FASD is characterized by growth problems and irreversible brain damage. It also includes lifelong difficulties with coordination, emotion control, school work, social skills and employment. The severity of fetal alcohol syndrome varies from child to child and depends on the duration and amount of maternal alcohol abuse.

Women who consume any amount of alcohol while pregnant have a 40 percent increased risk of stillbirth compared to women who do not drink at all.

Marijuana

It leads to a low birth weight baby and behavioral problems such as hyperactivity later in life. Long-term use of marijuana elevates the risk of premature birth. Women who use marijuana while pregnant have 2.3 times increased risk of stillbirth.

Prenatal exposure to marijuana is associated with problems of neurological development manifesting as deficiencies in problem-solving skills, memory, attention, and social interactions. Babies born to women who abuse marijuana while pregnant are more likely to use marijuana as young adults.

Cocaine

Prenatal cocaine exposure is associated with several long-term health consequences and neuro-developmental issues in the baby, including impaired language development and behavioral problems. Other adverse outcomes of cocaine abuse during pregnancy include preterm birth, placental problems, impaired fetal growth,

congenital malformations, stillbirth, and SIDS (sudden infant death syndrome).

Babies born to such mothers have a higher rate of prematurity, infants may be hyperactive and irritable with excessive sucking, tremors, and high-pitched crying.

Others

Opioids: Researchers have found a link between use of opioid painkillers by expectant mothers and birth defects in the baby. Abnormalities such as spina bifida, hydrocephaly and glaucoma are also caused by this.

Maternal abuse of opioids (for example, oxycodone and codeine) heroin, and methadone can cause NAS (Neonatal Abstinence Syndrome) in a newborn infant. Babies who receive one or more of these drugs before delivery from their mothers are born with a dependence on the drugs. After birth, when they no longer get the drugs, it results in a postnatal withdrawal syndrome. Opioid use by the mother in the first trimester increases the chances of a heart defect in the baby by two times.

Misuse of opioids during pregnancy is also associated with serious complications such as placental abruption, fetal growth retardation, preterm labor, and stillbirth.

Hallucinogens such as LSD, MDMA and ecstasy, alter a person's perception of reality by causing them to see, hear, and feel things that are not real. Hallucinogen abuse during pregnancy may increase the risk of miscarriage, premature delivery and withdrawal symptoms in the newborn. Babies may also have heart and brain abnormalities and be small in size. Studies show that spontaneous abortions occur significantly more frequently in mothers who abuse LSD.

It is difficult to establish a link between hallucinogens and adverse fetal outcomes because pregnant drug abusers often simultaneously use other illicit substances.

Methamphetamine abuse during pregnancy is associated with placental abruption (separation of the placenta from the wall of the uterus).

Addiction Management in Pregnancy

Getting help for addiction as early as possible in the pregnancy is of benefit to both mother and child. Drug Rehab in the First Trimester results in better outcomes for Mother and Child. Women who present for treatment early in their pregnancy have the best outcome with a higher rate of breastfeeding and discharge home. It also reduces the risk of miscarriage, preterm delivery, birth defects, and neonatal abstinence syndrome. It also restores the mother's physical and psychological health to enable her to care for the baby during the pregnancy and after birth.

Avoiding alcohol is recommended to all women who are pregnant or planning to become pregnant. Alcohol is most harmful to the developing fetus for the first 12 weeks of the pregnancy, but stopping drinking at any time, even during the second and third trimester can help reduce risks. Brain development occurs throughout the pregnancy and the sooner a pregnant woman stops drinking the better it is for her and the baby.

Women who are addicted to drugs or alcohol require specialized care, including prenatal care and addiction treatment, to address their complex medical and psychosocial needs. Studies have found that a comprehensive prenatal and addiction treatment program for women with a history of alcohol or drug abuse is associated with positive health outcomes.

Studies have found that medication-assisted treatment with methadone therapy for opioid-addicted pregnant women is associated with reduced fetal morbidity, improved maternal health and better utilization of prenatal care.

Challenges during Treatment

Social stigma and the fear of being criticized and judged by healthcare providers, friends, and family also prevent some pregnant women from going to drug rehab.

CONCLUSION

The frequent nationwide survey exclusively to include actual number of addicted females (with special reference to females of child bearing age) to understand the seriousness of the issue and to include it in national health program should be done. A special awareness program and education regarding addiction, its hazards, de-addiction and proper rehabilitation, counseling, follow-ups and to provide platform to those who have properly de-addicted to become role model and volunteer to serve others with the similar problem encouraging them to show ray of hope to lead a normal healthy life should be the main aim of addressing this serious trend to create a healthy progeny.

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